

**Notice of Allowability**

Application No.

10/684,614

Examiner

Tanh Q. Nguyen

Applicant(s)

ONER ET AL

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed 10/14/03.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ The drawings filed on 14 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance:

the prior art, individually or in combination does not teach an integrated circuit multiprocessor apparatus for processing a plurality of data packets comprising a memory comprising a plurality of descriptors, each of the plurality of descriptors comprising an ownership indication, a start of packet indication, an end of packet indication, a buffer length value and a buffer address for specifying a location of a buffer in memory for storing at least a portion of a data packet; and a packet manager circuit being configured to write back to memory all descriptors associated with a data packet upon completion of the transfer of the data packet and the descriptors are written back in the order in which they are released;

the prior art, individually or in combination does not teach a system for controlling distribution of a plurality of data packets to a plurality of processors, the system comprising a DMA controller releasing ownership of a plurality of consecutive descriptor entries in order upon completing storage of a data packet; and an assignment processor for assigning a first group of descriptors from the plurality of consecutive descriptor entries to a first processor and for assigning a second group of descriptors from the plurality of consecutive descriptor entries to a second processor; where each processor in the plurality of processors is configured to spin on the final descriptor in its assigned group of descriptors and to process any packet comprising any EOP descriptors contained with its assigned group of descriptors along with any other descriptors associated with each EOP descriptor;

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the prior art, individually or in combination does not teach a method comprising assigning a first subset of a plurality of descriptors to a first processor and a second subset of the plurality of descriptors to a second processor; releasing the first descriptor group to software by writing the first descriptor group to memory; releasing the second descriptor group to software by writing the second descriptor group to memory; and at each processor, identifying any EOP descriptor in the assigned subset of the plurality of descriptors and processing any descriptor associated with said EOP descriptor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Quang Nguyen whose telephone number is (571) 272-4154 and whose e-mail address is [tanh.nguyen36@uspto.gov](mailto:tanh.nguyen36@uspto.gov). The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for After Final, Official, and Customer Services, or (571) 273-4154 for Draft to the Examiner (please label "PROPOSED" or "DRAFT").

Effective May 1, 2003 are new mailing address is:

Mail Stop \_\_\_\_\_

Commissioner for Patents

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Alexandria, VA 22313-1450

Effective December 1, 2003, hand-carried patent application related incoming correspondences will be to a centralized location.

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**KIM HUYNH**  
**PRIMARY EXAMINER**  
7/11/05

TQN  
July 10, 2005